



**BRONZE MEDALLION
LEARNER GUIDE**

think. act. save.



BRONZE



ROYAL LIFE SAVING
WESTERN AUSTRALIA

BRONZE MEDALLION LEARNER GUIDE

This Learner Guide has been produced by The Royal Life Saving Society Western Australia Inc. to aid participants in the Bronze Medallion course.

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All information refers to the Royal Life Saving Society "Swimming and Lifesaving: water safety for all Australians" manual (6th edition).

All information is true and correct at time of publication.

Learner Guide Version History

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ASSESSMENTS

EXAMINER ASSESSED

Assessment	Topic	Assessment Type
1	Theory Examination	Answer multiple choice questions and written questions (100% pass mark).
2	Primary Survey – Resuscitation Initiative	Demonstrate initiative in dealing with a non-breathing person.
3	Rescues – Reach	A non-swimmer is in difficulty 2 mt from safety. Demonstrate a reach rescue.
4	Throw – unweighted rope	A person is in difficulty 10 mt from safety. Perform a throwing rescue and secure a person at a point of safety
5	Timed Tow – 3mins/15 secs	Dressed in clothes (any of which may be discarded as desired) Rescue an unconscious breathing person who is 50m from safety. Approach the casualty and tow them 50 mt back to safety
6	400m swim – 13 minutes	Dressed in swimwear, swim continuously 400m: 100m freestyle, 100m survival backstroke, 100m sidestroke and 100m - breaststroke
7	Survival Skills	Demonstrate survival skills dressed in swimwear, trousers and long sleeved shirt.
8	Accompanied Rescue and Wade (if possible, depending on environment)	Rescue a weak swimmer in difficulty with a floatation aid. Enter the water, wade 5 to 8 mt and rescue a swimmer in difficulty back to safety
9	Tow	A weak or injured swimmer is in difficulty in deep water 25 metres from safety, swim to the person and while returning to safety use an appropriate non-contact tow
10	Spinal Injury	Apply the vice grip for immobilisation of a spinal injury and then wade with the casualty for 5m (water no deeper than 1.2 mt)
11	Defensive & Escape Techniques	Dressed in swimwear, trousers and long sleeved shirt perform 2 techniques in deep water.
12	Search and Rescue	Demonstrate a search pattern in approximately 2m of water.
13	Recovery and Resuscitate	Identify a submerged casualty in water, recover and resuscitate the casualty in 2m of water.
14	Rescue Initiative	Demonstrate initiative in effecting a rescue of 2 people who are in difficulty up to 15m from safety and whose conditions are unrevealed. Complete a written incident report.

ASSESSOR

The assessor will be an approved Royal Life Saving assessor holding a current Aquatic Trainer award, and relevant qualifications at the level being assessed, or higher.

DESCRIPTION OF TASK

Candidates must satisfactorily complete practical water rescue and resuscitation scenario, identification of the use of a defibrillator, as well as theory examination.

DURATION

The Bronze Medallion assessments must be completed within class time. The current nominal allotted time for both training and assessment is 14 hours.

ACCESS AND EQUITY

Royal Life Saving has a Building Diversity Policy that ensures that people from all groups, such as aboriginal people, people with a disability, people from culturally and linguistically diverse backgrounds, people from rural and remote areas, mature aged people, and women, have equal opportunity to get successfully into Vocational Education and Training to gain skills and knowledge that equips them for a reasonable working life.

COMPLAINTS GRIEVANCES AND APPEALS POLICY

Complaints

All participants in any training or assessment activity conducted by Royal Life Saving have the right to seek redress if they believe that they have been treated unfairly or if they are not satisfied with any process or relevance of the training or assessment activity.

Grievance Mechanism

Royal Life Saving has developed a Grievance Policy to ensure that participants and clients have access to a fair and equitable process for dealing with grievances.

Appeals Process

Royal Life Saving has developed an Appeals Policy to ensure that participants and clients have access to a fair and equitable process for dealing with complaints regarding final assessment outcomes. Any appeal on an assessment decision must be made by the participant within 10 working days after the participant was notified of the result.



COURSE OUTLINE

BRONZE MEDALLION PROGRAM

Theory / Practical	Topic
	Introduction
Theory	Culture of Lifesaving
Theory	How to Call for help in an Emergency
Theory	Water Safety and Hazard Identification
Theory	Aquatic Environments
Demonstration / Practical	Recovery of a breathing unconscious casualty
Demonstration/Practical	Adult, child and infant Resuscitation
Theory	Cardiac arrest, choking, hypothermia, shock and bleeding, bites and stings
Practical/Theory	Automated External Defibrillator (demonstration, if possible)
Theory	Communicable Diseases and Hygiene
Theory	Rescue Principles – Steps in a Rescue
Practical	400m Swim (13 minutes)
Demonstration/Practical	Types of Entries and exits
Theory / Demonstration	Characteristics of a Person in Difficulty
Theory / Demonstration/Practical	Rescue Techniques: talk, reach, throw, wade, row, swim, tow
Practical	Timed Tow unconscious(3.15 sec)
Theory/Practical	Search Patterns in deep water(deepest part of your environment no more than 2 mt)
Demonstration/Practical	Recover and Resuscitate (simulate recover of unconscious casualty from deep water and tow to safety)
Practical	Survival Skills:
Theory / Demonstration/Practical	Spinal Management
Theory	Alcohol and Recreational Aquatic Activity
Theory	Emergency Care
Theory/Practical	Accident Report Forms

Please Note: The Swimming and Lifesaving manual is the benchmark publication for the teaching of water safety, swimming, survival, lifesaving and rescue skills. It provides a complete guide for the knowledge and skills required to achieve all of Royal Life Saving's lifesaving awards. The Swimming and Lifesaving manual can be purchased through Royal Life Saving office.

HISTORY OF RLSS AUSTRALIA AND WESTERN AUSTRALIA

The Royal Life Saving Society of Australia (RLSSA) is a not for profit benevolent organisation and has developed into the leading water safety education organisation in Australia. Its roots foundation stems from the United Kingdom, where William Henry commenced water safety education in 1891 and this spread to Australia in 1894.

In 1924, the RLSSA was granted a Royal Charter by King George V and the official RLSSA was formed in 1934. Many aspects of the Society's operations were managed from the United Kingdom until 1957. In 1959 a supplemental Charter was granted by Queen Elizabeth II and this formally established the National Branch of the Society in Australia. A permanent national secretariat was established in 1978.

In 1984, the Society incorporated as a public company limited by guarantee.

The Western Australian Society was formed in 1909 by a Police Sergeant in Kalgoorlie who conducted water safety education programs for people who travelled to the coast for holidays.

What is our purpose?

Empowering our community to be safe when they are in, on, or around water and leading efforts to reduce the impact of drowning.



THE CULTURE OF LIFESAVING

The Bronze program has been successfully running in Australia for over 105 years. By completing one of the awards in this strand, you will join the millions of other Australians who have achieved the skills, judgement and initiative to perform successful aquatic rescues.

Central to the role of the lifeguard or rescuer is the safeguarding of life. This inherently includes both the life of the casualty in distress and the life of the rescuer. Therefore, self-preservation is of the utmost importance and rescue techniques should in no way expose the rescuer to danger.

As with most physical skills, lifesaving skills deteriorate without regular practice. With this in mind, the focus for the society today is on participation. The Royal Life Saving Society would like to encourage all Australian's to undertake regular water safety activity. In the very least, Royal Life Saving encourages the development and continuance of water safety knowledge as the foundation on which all aquatic activity should be based.



AWARENESS - RECOGNISING EMERGENCIES

Recognising an emergency is the first step when responding to an emergency.

It is essential to recognise an emergency before any action can be taken by emergency personnel. Before you try to assist anyone in an emergency, first check for any danger. This also means danger to yourself, as YOU are most important in any emergency situation. Tragically, many people have died trying to rescue others because they didn't look for danger first or consider whether they were capable of performing the rescue.

You may become aware of an emergency because of certain things you observe:

Unusual Noises

- Screaming/yelling/crying/groans
- Boating incidents /motor sounds
- Shouts for help

Unusual Smells

- Non recognisable or strange odours
- Water quality
- Odours that can be tasted / alcohol
- Fire/ smoke/fumes

Unusual Sights

- Crowds gathering
- Location of person
- Surfboard and no surfer
- Murky / disturbed water

Unusual signs & symptoms of behaviour

- Unconsciousness
- Noisy or laboured breathing
- Clutching at chest or throat
- Slurred, confused or hesitant speech
- Drowsiness, irritability, confusion
- Profuse sweating for no reason
- Unusual skin colour or limb position
- Obvious deformity to body parts
- Person waving in the water
- Person going under water regularly

ASSESSMENT – MAKING INFORMED JUDGEMENTS

Whatever the degree of skill of a person who recognises the emergency, correct assessment of the situation is vital. Wrong actions may result in the rescuer also getting into difficulty. Following assessment the rescuee should develop a plan of action.

Once you are certain it is safe to act, plan what to do.

ACTION – DEVELOPING A PLAN

It's important to take action and not wait for someone else to take control.

Every second counts in an emergency. But remember, do not put yourself in danger

Self-preservation
Number of people in difficulty
Priorities if rescue
Environmental conditions
Available assistance/selecting rescue aids
Effecting the rescue

AFTER CARE – CALL FOR HELP

Either call Triple Zero (000) yourself or get someone else to do so immediately. Stay on the line to help direct emergency services to where you are. Give aid to the casualty as required; that may mean performing resuscitation until medical services arrive.

RESPONDING TO EMERGENCIES

Barriers to Action

At times people recognise an emergency but are reluctant to act.

People have various reasons for hesitation:

Presence of bystanders

The presence of bystanders can cause confusion at an emergency scene. It may not be easy to see casualties or to identify if anybody is assisting the injured. Often, if there are a lot of bystanders observing the accident, the first aider can be reluctant to step forward and give emergency care to the injured.

At the scene of an emergency, you may need to ask bystanders to stand back so that emergency personnel can reach the injured. Bystanders can also be useful - they can give you information about how the accident happened, assist you with first aid or call an ambulance.

Uncertainty about the casualty

Most accidents occur in or around the home so you are more likely to give first aid to a family member or friend than a stranger. If you do not know the casualty you may feel uncomfortable touching them. The casualty may be a different age, race or gender. These things should not stop you from giving care - think of yourself in the casualties' position.

Nature of the injury or illness

At the scene of an emergency you may be confronted by disturbing sights. The presence of blood, vomit, burning skin, or unpleasant odours may initially prevent you from giving first aid. It is important that you assess the situation and determine where you can help. If you feel that you cannot assist the injured due to the severity of their injuries, there are still many things you can do to help. These include removing dangers or bystanders, calling an ambulance and reassuring casualties involved in the emergency.

Fear of doing something wrong

Everybody responds in different ways to the anxiety of performing first aid. Whether trained or untrained some of us are afraid that we will perform first aid incorrectly and make the situation worse. If you are unsure of what to do, call an ambulance.

MANAGE EMERGENCIES

Communicable diseases

Communicable diseases are those diseases that can be spread from one person to another such as:

- Colds
- Influenza
- Measles
- Mumps
- Glandular Fever
- HIV
- Tuberculosis
- Some forms of Meningitis
- Some skin infections
- Hepatitis A, B & C

How these diseases can be passed on to the first aider by:

- Blood
- Saliva
- Vomit
- Pus
- Urine
- Faeces.

These may enter the First Aider's bloodstream through cuts, grazes or the mucous membranes.

Steps to take before management of casualty

Whenever possible:

- Cover exposed cuts and grazes with waterproof dressing
- Wear disposable plastic or rubber gloves
- Goggles
- Use antiseptic hand gel
- Wash hands with warm soapy water for 15 seconds before and after
- Cover exposed skin

Steps to take after management of casualty

1. If splashed by blood or other body fluids, skin should be washed thoroughly with soap and running tap water, and alcoholic hand gel if available.
2. If skin is punctured by a sharp object, which may be contaminated, wash the area thoroughly with soap and running tap water, or hand gel and seek medical advice as soon as possible.
3. If a mask is used, soak for 30 mins in bleach or disinfectant, and then wash with detergent and dry it. Dispose of any contaminated materials (such as bandages) and replace first aid kit with new ones.

LEGAL CONSIDERATIONS

Consent

Consent should be sought from the casualty whenever possible prior to applying first aid. Treatment given without the person's consent could be constituted as assault.

Consent can be implied or expressed:

- It is implied when a person attends a first aid room for treatment
- Consent is expressed when oral or written permission is given

In some circumstances a person cannot give consent for treatment:

- If the casualty is unconscious
- Severe intellectual disability
- Where injury or illness has affected the person's ability to make an informed choice

In these cases, consent is not required and a qualified person may administer any necessary treatment to save the person's life or to prevent serious illness or further injury

- When treating children or persons under the age of 18 consent is required from the parent or legal guardian where able. This will depend on the situation and condition of casualty.

Duty of Care

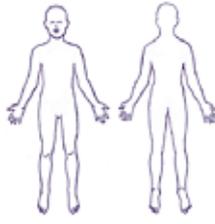
In the case of an emergency, the law does not require a first aider to render assistance unless that person already owes a duty of care to the injured or ill (for example a school teacher responsible for their students). Once first aid is commenced, a duty of care has been assumed. If a person in your care becomes ill or injured, you must help them by doing something within the scope of your training that assists that person. The first aider, who owes a duty, must apply their first aid skills and knowledge in a responsible and reasonable manner.

Recording

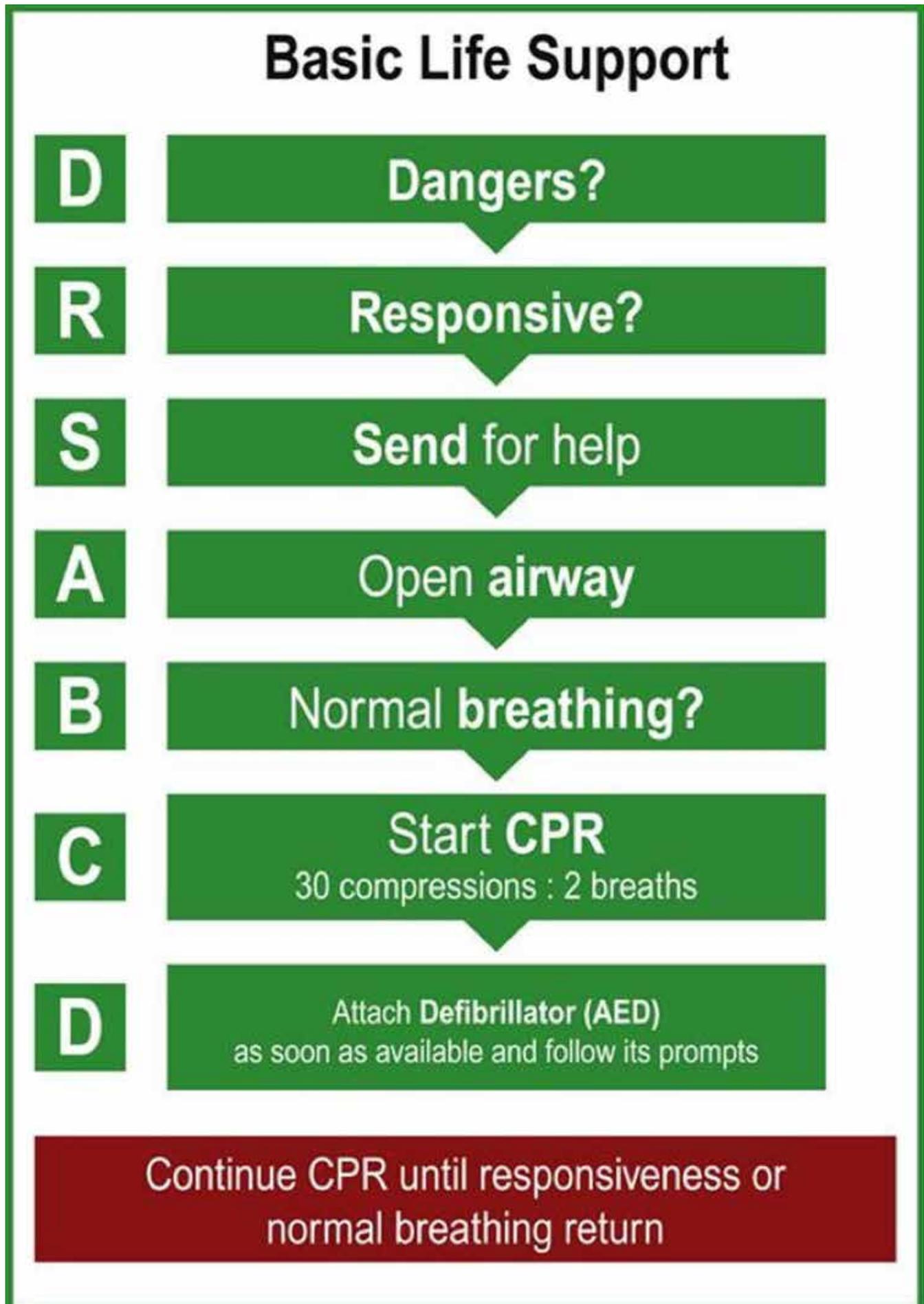
In the event of any dispute, it will be helpful to the first aider to have a record made at the time of the incident. The importance of accurately recording and retaining written facts cannot be underestimated. When authorities investigate serious accidents, all written details are carefully examined. Such records are referred to and used as evidence at inquests and court cases.

The following guidelines may be of assistance in the preparation of a first aid report:

- Write in ink only
- Sign and date any alterations
- Do not use correction fluids
- Keep the contents strictly confidential, clear and concise
- Make sure that the record is factual and based on your observations
- Write the word "draft" on the document prior to submitting so that changes can be made if the incident is taken further
- Cross out and initial any blank spaces

ROYAL LIFE SAVING WESTERN AUSTRALIA			
First Aid Report			
Your name	Location	Date	Time
Name of casualty (if known)			Gender M / F
<input type="checkbox"/> Consent to treatment		<input type="checkbox"/> Refusal of treatment	
Details of accident or illness: (what happened?)			
First aid assessment: (What is the injury/illness?)			
Treatment		Location of injuries	
			
Signature			

DRSABCD FLOWCHART



PRIMARY SURVEY

DRSABCD

D – DANGER

Check for danger and hazards to yourself, bystanders and the casualty before approaching or touching the casualty.

- Assess the scene for danger to yourself first. If you end up injured, you may be unable to help the other casualties.
- Are there bystanders who could be injured? Ask them to move away from the scene if you can't use them to assist you.
- Is there danger to the casualty?



R – RESPONSE

Begin to assess the casualty for a response as you walk towards them. Example: are they making eye contact, are they crying and asking for help.

Types of response

Conscious - Person respond normally to your questions, makes eye contact, obeys commands (eg take a deep breath for me)

Semi-conscious - May respond with some sounds, inappropriate answers, may respond slowly to commands

Unconscious - No response from casualty verbally or physically

A	alert	respond to your voice, may have some confusion, disorientated and will have motor body function
V	voice	makes some type of response when you talk to them, grunt, moan or a movement of limb
P	pain	response to pain stimulus, or squeezing fingers/shoulders
U	unresponsive	"unconscious" is recorded if the casualty does not give any eye, voice or motor response

S – SEND FOR HELP

When possible, the person with the best first aid knowledge should stay with the casualty while someone else calls for the emergency assistance.

1. To call for the Ambulance, Police or Fire Service, use 000 from all phones, including mobiles. (Mobiles just need to have a signal and do not need credit to be able to dial 000.)
2. When the emergency operator answers, state clearly which service is required.
3. Stay calm and speak clearly to convey the message. Be ready to answer any questions.
4. Know the following:
 - The exact address or location with any clear landmarks or closest street cross reference
 - An outline of the emergency
 - The number of casualties involved
 - Any information about the condition of the casualty(s)
 - Any hazards relevant to the area, such as fire, chemical, spill, fumes
 - The telephone number where the caller can be contacted in case further information is needed
5. Wait until the operator tells you to hang up.
6. Ask someone to stay in a prominent position to direct the emergency service vehicle to the correct area.

If possible, ensure you send for help prior to entering the water

Water Police 9442 8600

Marine emergencies 131 444

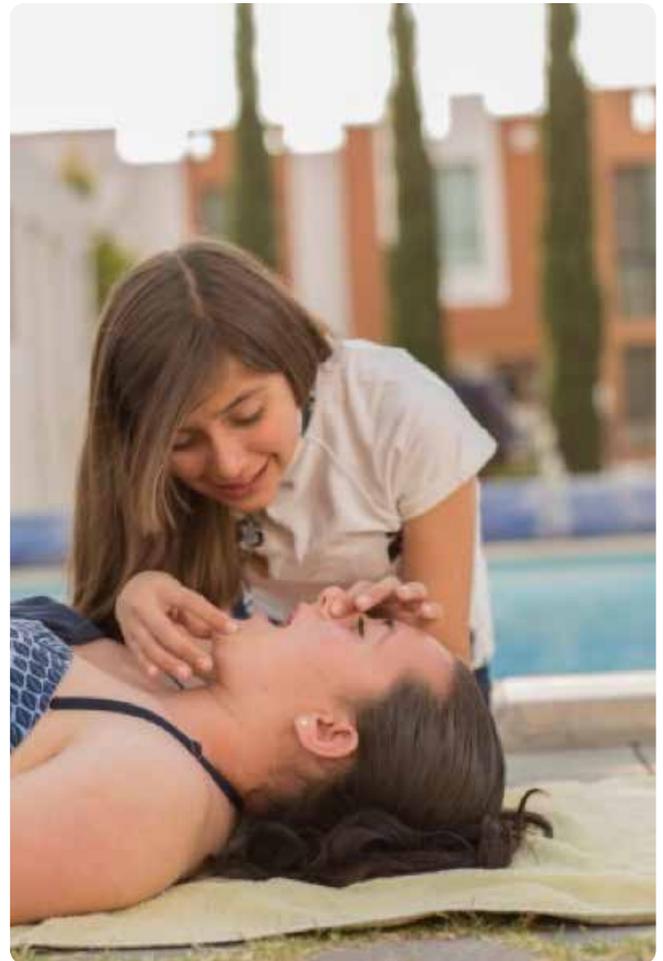
Download the EMERGENCY app



A – AIRWAY

DO NOT HEAD TILT WHEN CHECKING THE AIRWAY

- Open the mouth and look inside for any foreign matter
- Roll onto side if foreign matter is seen, then remove by scooping downwards with fingers
- If no foreign matter is detected, then open the airway by giving a head tilt/chin lift
- The most common cause of airway obstruction is the tongue if a casualty has been removed from the water, they should be positioned on their back to assess airway and breathing



B – BREATHING

HEAD TILT AND JAW SUPPORT

Once you have cleared any foreign material from the airway, a head tilt should be applied to open the airways. This can be achieved by placing one hand at the top of the head (hair line) and the other on the chin (pistol grip), and gently tilting the head back.

- Infants (12 months and under) head is kept in a neutral position when assessing and providing breaths. Provide breaths as puffs – air that is in your cheeks

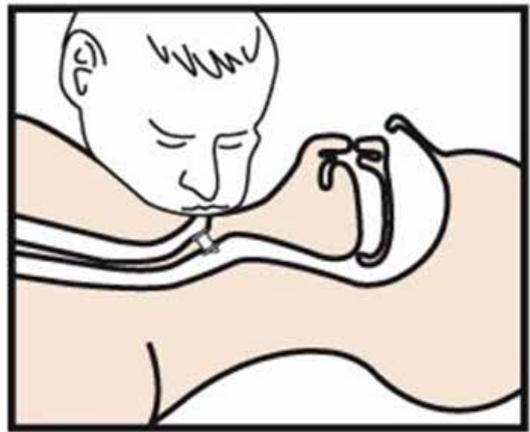


- A casualty who is unconscious on their back and breathing must be placed in the recovery position



The following techniques can be applied to provide rescue breathing to a casualty

- **Mouth to Mouth** – Open the casualty's mouth and cover it with your mouth. Seal the nose with your cheek, or with a nose pinch.
- **Mouth to Mask** – Use a resuscitation mask to provide a barrier. Ensure correct head tilt is maintained and apply adequate pressure on the mask to maintain a complete seal.
- **Mouth to Nose** – Close the casualty's mouth using the pistol grip and seal the nose with your mouth. Apply rescue breathing as normal.
- **Mouth to Stoma** – Certain people, due to previous surgery, breathe through an opening or stoma in the trachea that opens onto neck.



Check for breathing: Look, Listen, Feel for 10 seconds

- Look down the chest, listen for breath and feel it on your cheek. Rest your hand on the person's diaphragm and feel for breathing.
- Minimum of 2 Breaths need to be recognised for Normal Breathing within 10 Secs.
- If Normal Breathing is NOT present, Start CPR

ABNORMAL BREATHING

- Excessively fast or slow
- Bubbling, gurgling or absence of breathing
- Shrill, harsh, wheezing, high pitched
- Agonal breathing- The body is trying to draw oxygen into the lungs, the person is not breathing normally. This is commonly seen as the last few breaths a person may take. It is generally seen in cardiac arrest casualties.

COMPLICATIONS OF RESCUE BREATHING

If the chest does not rise, check:

- Head tilt and jaw support
- Mouth and nose seal
- Any obstruction of the airway
- Adequate volume of inflation



If a casualty begins to vomit or regurgitate:

- Vomiting is an active process, often indicative of recovery
- Regurgitation is a passive process involving the outflow of stomach contents
- Presence of foam
- Turn the casualty on their side
- Clear the mouth using a finger sweep
- Check for breathing
- If no breathing is present, continue CPR

If there is air in the stomach:

- It may be caused by a partially blocked airway or over inflation
- Check the head tilt, jaw support and reduce the volume and force of inflation

Recovery Position

– one method to perform recovery position

Casualty on their back

1. The direction you are rolling the casualty, extend their arm to 90°. (Image 3)
2. The arm closest to you, place across the casualty chest (Image 3)
3. The leg closest to you, lift the casualty knee (Image 3)
4. Place your hand under the casualty shoulder and on the bent knee and push the casualty away from you until they are in the position (Image 4)
5. Bring the casualty leg up and tilt the head back to open the airway



C - COMPRESSIONS

- The location of the compression point is in the centre of the chest or lower half of the sternum. This can be found by direct visualisation compressions should always be 1/3 of the depth of the chest of the casualty



- Compression rate is approximately 2 compressions every second or 100 – 120 per minute
- 30 compressions :2 breaths
- Complete approximately 5 rounds of 30:2 in 2 minutes
- If another first aider is available complete a maximum of 2 minutes of compressions and swap over. Continue swapping every 2 minutes to ensure compressions remain effective

Two Operator Resuscitation

If a second person is available to assist with resuscitation, you should first instruct them to call for help (if not already done), and locate a Defibrillator (if in an area likely to have one). Once the second rescuer returns:

- Continue 1 operator CPR as you instruct them how to perform the compressions
- Guide their hand placement and help them count / obtain a rhythm
- Once competent, 2 operator CPR can be performed with one person completing each role (i.e. one delivering rescue breaths, and one delivering compressions).



Resuscitation during Pregnancy

When resuscitating a casualty believed to be pregnant, complications may occur resulting from pressure on the stomach, diaphragm and lungs from the baby. To provide an optimal situation for resuscitation, padding should be placed under the right buttock of the casualty, to create a 'left lateral tilt', ensuring reduced pressure on blood vessels and therefore unrestricted flow of blood back to the heart.

D – DEFIBRILLATION

- An electric shock delivered across the heart
- A process designed to resume the coordinated rhythm and pumping action of the heart
- The effective treatment for Ventricular Fibrillation (VF) and Pulseless Ventricular Tachycardia (VT)

VENTRICULAR TACHYCARDIA - is rapid heart rhythm that originates in one of the ventricles of the heart. It is a life-threatening arrhythmia. It may lead to ventricular fibrillation, asystole, and sudden death.

VENTRICULAR FIBRILLATION is a cause of cardiac arrest and sudden death. The ventricular muscle twitches randomly, rather than contracting in a coordinated fashion.

- Do not stop CPR to place the AED on the casualty
- Move Jewellery if possible, place pad under pace maker / internal defib or 10cm away
- Cut all clothing off the top half including bras. Be mindful of dignity for patient and cover their chest if able
- Dry the casualty if they have been removed from the water
- Dry to wipe away sweat / sunscreen
- AED can be used on wet surface, metal surface and pregnant casualty



PAD PLACEMENT

- **0– 1 Years** - No defibrillation is recommended, commence CPR, call 000 and follow their directions
- **1 - 8 years** - Paediatric pads and an AED with a paediatric capability should be used (50 joules). The AED when analysing infants or children will automatically calculate and adjust the shock voltage to suit the patients' weight and chest wall thickness. If the AED does not have a paediatric mode or paediatric pads then the standard adult AED and pads can be used as per the ARC guidelines. Ensure the pads do not touch each other on the child's chest
- **8 years plus** - Standard adult AEDs and pads are suitable for use in children older than 8 years (150 joules). If the pads are too large use in the front-back position (antero-posterior): one pad is placed on the upper back (between the shoulder blades) and the pad on the front of the chest, if possible slightly to the left



RESUSCITATION CHART

The following chart is a guide of the technique and timings required to resuscitate adults, children and infants.

	Adults & Children	Infants
Head Tilt	FULL	NEUTRAL
Hand Placement	CENTRE OF CHEST	
Ratio	30:2	30:2
Compressions per min	100 - 120	
Compression Depth	1/3 OF CHEST	
Technique	2 HANDS	2 FINGERS
Breaths	Full – 1/2	Puff

When can you stop CPR?

CPR should be continued until:

- Casualty begins Normal Breathing
- When an ambulance arrives and an officer instructs you to stop or takes over
- To continue will place yourself in danger
- You physically cannot continue eg exhausted

CARDIAC ARREST AND THE CHAIN OF SURVIVAL

Cardiac arrest is caused when the heart's electrical system malfunctions. In cardiac arrest death results when the heart suddenly stops working properly. This may be caused by abnormal, or irregular, heart rhythms called arrhythmias (irregular heart beat)

The chain of survival describes the sequence of critical intervention stages in the initial care of a Cardiac Arrest Patient.

The critical stages are:

- **Early Call for Help**
It is essential to attend the casualty and call for help as soon as possible.
- **Early CPR**
This will increase the casualty's chance of survival by encouraging oxygenated blood flow to the brain.
- **Early Defibrillation**
The restoration of an adequate heart rhythm is necessary for the casualty to survive a cardiac arrest.
- **Post Resuscitation Care**
Transportation of the casualty to hospital by ambulance should not be delayed to enable further treatment and monitoring of their condition.



CHOKING

Sudden airway obstruction may be either mild or severe. If the obstruction is severe/complete the person may soon become unconscious. The conscious choking person may have a partial or complete airway obstruction.

Mild Airway Obstruction – Depending on the severity of the blockage, air flow may still pass in and out, the casualty may be able to talk

Signs and Symptoms

- Difficulty breathing
- Coughing or gasping
- Clutching at throat
- Red face and watering eyes
- Anxiety and agitation

What to do for a Mild Airway Obstruction

- Assess severity
- If an effective cough is present, encourage coughing
- Rest & reassure
- Call an ambulance if they are unable to cough object out

Severe Airway Obstruction - there is no airflow in or out and they are unable to talk

Signs and Symptoms

- Silent
- Clutching at throat
- Frantic or quiet
- No air is getting into the body
- May collapse

What to do if conscious

- call 000
- 5 back blows
- 5 chest thrusts
- Alternate if unsuccessful

If Unconscious

- call 000
- Commence CPR



SHOCK

Shock is a loss of effective circulation which leads to a lack of oxygen and nutrients being delivered to the tissues and can lead to organ failure.

Some of the main causes of shock are:

Loss of blood volume (Hypovolemic shock)

- Severe blood loss
- Burns
- Excessive sweating and Dehydration
- Diarrhoea and vomiting
- Major or multiple fractures or trauma

Cardiac (Cardiogenic shock)

- Heart attack

Abnormal dilation of blood vessels (distributive shock)

- Severe infections
- Allergic reaction
- Severe brain/spinal injuries

Signs and symptoms include:

- Pale, cold & clammy skin
- Restlessness
- Dizziness
- Nausea
- Anxiety
- Thirst
- Rapid but shallow breathing
- Change in body temperature (typically feeling too cold)
- Change in conscious state

Management for a casualty suffering from shock:

- If unconscious follow basic life support procedures
- Treat the cause (e.g. bleeding, fracture, burn, fluid loss)
- Protect the casualty from extremes of temperature
- Call for ambulance
- Legs placed in the supine position

BLEEDING

External Bleeding

Blood is lost from the blood vessels through a break in the skin barrier

Recognition

External bleeding is usually obvious. Bleeding also produces paleness, sweating, faintness and/or anxiety

Management

- Rest the casualty and apply direct pressure to the wound
- Have the casualty apply pressure directly onto wound using a sterile pad
- Apply a pressure bandage over the pad & bandage toward the heart
- Check circulation by applying pressure to the nail bed and watch colour return
- Continue to monitor the casualty and treat for shock
- Seek medical attention if blood loss is severe or is continuous

Internal Bleeding and abdominal injuries

Blood is lost from the blood vessels into the open spaces of the body.

Recognition

- Rapid and weak pulse
- Rapid and gasping breaths
- Signs of internal bleeding could be frothy red blood coughed up from the lungs, red or rust-coloured urine or dark faeces (like tar)
- Pain, tenderness and discolouration at site
- Anxiety or restlessness
- Nausea or vomiting
- Bruising and/or swelling to site

Management

- Rest and Reassure the casualty, call 000
- Lay down
- Cover the casualty
- Monitor conscious state



COLD INDUCED ILLNESS

HYPOTHERMIA

Hypothermia occurs when the body temperature drops

Signs and Symptoms

- Shivering (may stop in later stages)
- Slow, irregular pulse or breathing
- Irritable, irrational or confused behaviour
- Apathy and decreasing levels of consciousness
- Abnormal coordination
- Coldness, numbness, cramps

What to do

- Move to warm, dry place if possible
- Warm casualty gradually
- Give warm fluids if conscious
- Seek medical attention urgently
- Stay with casualty
- DO NOT give alcohol
- DO NOT rewarm too quickly
- DO NOT rub or massage the casualty

Body Temperature Chart

26	Hypothermia
29	Very cold (Stop shivering)
32	Cold
35	Normal
37	Fever
37-39	High fever
39+	Unconscious
42	Unconscious

BITES AND STINGS

A poison is any substance which damages tissue or cause illness. Those poisons which are made by living organisms are called toxins. Toxins which are introduced into the casualty by injection (e.g. via fang or sting) are called venoms.

Signs and Symptoms (general, inc. snake and spider bites):

- Nausea, vomiting and diarrhoea.
- Headache.
- Double vision.
- Drowsiness.
- Pain or tightness in the chest or abdomen.
- Giddiness or faintness.
- Bruising.
- Sweating.
- Breathing difficulties.

Blue-ringed octopus and cone shell:

Specific signs/symptoms:

- A painless bite site.
- Numbness of lips and tongue.
- Progressive weakness of muscles used for breathing.

Management:

- Seek medical aid immediately.
- Rest and reassure the person, monitor ABC.
- If breathing difficulties develop, commence rescue breathing.
- Use the Pressure Immobilisation Techniques on the area if possible.



Stingray/spined fish:

Specific signs/symptoms:

- Intense pain, leading to irrational behaviour.
- Swelling, sometimes grey/blue discolouration.
- Open wound, bleeding.
- Embedded barb.

Management:

- Seek medical aid.
- Leave embedded objects in the wound; pad and apply pressure around the object.
- Bathe the area in water as hot as the casualty can tolerate, being careful not to burn the area.



Jellyfish:

The following information relates to jellyfish:

Tropical: jellyfish (chironex) and the irukandji. See ARC Guidelines (for treatment use vinegar if available).

Non-Tropical: blue bottle, jumbles (WA stinger).

Generally, jellyfish stings outside the tropics can be treated in the following manner:

- Rest and reassure the casualty; monitor.
- If there are tentacles on the skin, gently pick them off the tweezers or fingers, or wash off with water.
- Apply cold packs over the stung area.

Continue until pain is relieved.

- Do not rub the area.
- In severe cases seek medical aid.



General management table:

Use:	Heat	Ice	Vinegar	P.I.T
To treat bites/stings from:	<ul style="list-style-type: none"> • Stone fish • Stingray • Bull rout • Blue bottle • Cobbler • Sea urchin • Anything with spines 	<ul style="list-style-type: none"> • Red back • White tail • Bees • Centipede • Scorpion • Jellyfish (below the tropics) 	<ul style="list-style-type: none"> • Box Jellyfish • Irukandji • All jellyfish stings above the tropics 	<ul style="list-style-type: none"> • Funnel web • Snakes • Blue ringed • Cone shell
Primary goal:	Pain management	Stop swelling, pain management	Preserve life	To slow down poison, preserve life

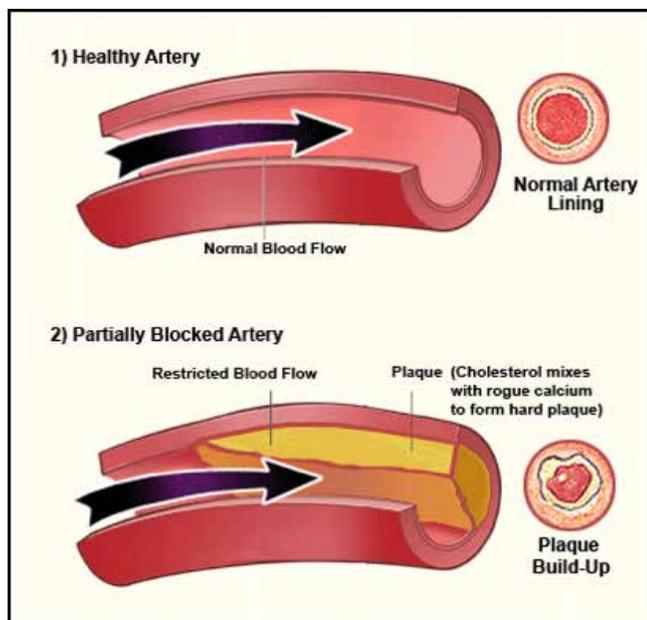
CARDIAC EMERGENCIES

HEART ATTACK

A person suffering from heart attack usually complains of pain, tightness or heaviness in the chest, and may be pale, sweaty and breathless. The pain may spread to the shoulder, arm, throat or jaw.

Management

- Call 000
- Reassure the casualty
- Loosen the casualty's clothing around their neck and chest
- Support the casualty in a comfortable position
- Encourage the casualty to remain calm
- Cardiac arrest is always a possibility, so be ready to perform CPR if required



SECONDARY SURVEY

Once a Primary Survey has been carried out and the breathing, circulation and severe bleeding has been controlled a secondary survey is required.

A Secondary Survey is designed to determine if the casualty is suffering from any other injuries that require treatment. Complete a full secondary survey of a casualty before treating the injuries so you can prioritise them from most life threatening to least life threatening injuries.

- Always wear rubber gloves and check your hands regularly for blood or fluid.
- Do not allow the casualty to move during the survey
- Speak calmly and reassuringly to the casualty and ask them or a bystander (if known to the casualty):
- **History:** What happened & previous injuries (this will give an indication to possible new injuries)
- **Allergies:** What are they allergic to, record this information;
- **Medical alert** bracelet / necklace or even a tattoo
- **Medications:** What medications are they taking or check the pulse rate and note the breathing rate and characteristics.

Ensure that you check the casualties back for injuries and bleeding as well

If rolling a casualty into the recovery position, ensure that you have removed keys and other objects out of their pockets so that damage or further injury is not caused.

General After care

- If the incident occurs the casualty may need protection from the weather
- No food or drink should be given to the casualty
- If necessary, keep the casualty warm with blankets or other coverings
- If sign of life disappears, recommence CPR

WATER SAFETY AND HAZARD IDENTIFICATION

When swimming, it is important to remember to maintain safety for yourself, others around you and the environment you're swimming in.

The following factors will contribute to your safety when in an aquatic environment:

- A concern for yourself
- A concern for others
- Awareness of dangers
- Minimising risks
- Preventing accidents
- Knowing when and how to act in an emergency

The prevention of emergencies depends on your understanding of, and ability to apply simple water safety measures. To help you do this, Royal Life Saving has developed three easy-to-remember rules known as the Aqua code.

GO TOGETHER

When playing in, on or near water always make sure someone is with you.



STAY AFLOAT AND WAVE

If in trouble in the water, try to relax, roll on your back, hold onto something if available, and wave one arm to attract attention.



REACH TO RESCUE

If someone needs help, don't get into the water. Lie down and reach out with a stick or a rope.



FOUR A'S OF A RESCUE

Steps in a Rescue

The steps in any rescue may be summarised as 'the four As'.

1. Awareness
2. Assessment
3. Action
4. Aftercare



Awareness

- Recognition of an emergency/hazard

Hazards can be found in ALL water environments: rivers, dams, beaches, harbours, lakes, pools, waterholes. Examples: currents, rips, mud, slippery bottom, submerged objects, deep water, cold water, watercraft, no barrier or fencing, etc

If a person is to perform or assist in a rescue, there are two things that must occur:

- Early recognition of a problem
- Interpretation of the event as an emergency that requires urgent action

Assessment

- Making informed judgments
- Do you have the knowledge, fitness, skill and judgement to do the rescue?
- Is it safe to conduct the rescue?
- Accepting responsibility

The time spent on assessment may vary from making an instant judgement – for example, reaching out with an aid to help someone- to making a deliberate plan, such as performing a rescue

Action

- Perform a safe, efficient and effective rescue

Before you act, check for any danger. Self-preservation is vital.

Ex. Can you reach the person? Can you throw something out to them that floats?

Or toss them a rope? Safe entry into the water / a safe exit point established before water entry

Aftercare

- Aid given until medical help arrives
- If the incident occurs outdoors the casualty may need protection from the weather
- Monitoring and reassuring the casualty
- Reporting the incident
- Comply with Duty of Care requirements

STANDARD WATER SAFETY SIGNS

Regulatory Signs

Are signs with a red border and bar on a white background. These signs contain instruction that must be complied with, failure to do so is a criminal offence.



Warning Signs

Are signs with a black border on a yellow background. These signs advise of a particular hazard or hazardous conditions, or that an activity is not recommended.



Informative and Permissive Signs

These signs always have a white border and a blue background and provide information about water safety features or indicate a location where a particular activity is permitted.

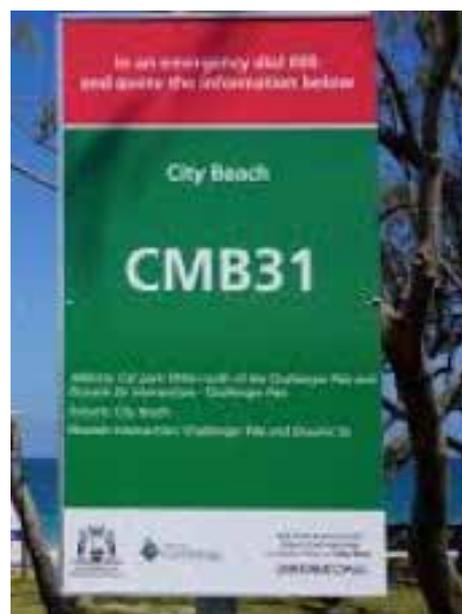


Beach Emergency Number Signs – BEN sign

When visiting the beach, take note of the closest BEN sign location and information. This will help emergency services accurately pinpoint the location in case of the emergency

Each BEN sign has a unique code based on an area prefix followed by a one to four digit number. This code is linked to the coordinates for the sign's location. The official location name (if there is one), the address, suburb and nearest intersection are also on each sign.

In an emergency, dial triple zero and quote the unique code and location information on the nearest BEN sign. Where possible, someone should wait at the BEN sign until emergency service crews arrive.



AQUATIC ENVIRONMENTS

Swimmers must have knowledge of potential dangers in different aquatic environments. An understanding of what constitutes safe, responsible behaviour around water will help to ensure enjoyment and safety. Weather conditions may change rapidly, potentially creating dangerous aquatic activities.

Rivers

Rivers, creeks and waterholes can be very dangerous and are often close to populated areas.

Dangers and Hazards:

- Crumbling banks – can result in a person accidentally falling into the water
- Uneven and unsafe river beds – can cause difficulty for people wading or swimming
- Submerged obstacles - such as trees, branches, rocks, rubbish can be dangerous when diving, swimming or even falling in accidentally
- Currents – unpredictable and can be caused by factors like flooding, projecting headlands or winding river course
- Passing boats
- Changes in water temperatures
- Changes in water quality
- Tides - High tide means deep water, under current and faster moving water. Low Tide means – submerged objects are a bigger risk, also spinals are a higher risk.

Stay safe at the river:

- Never go alone
- Only participate in activities such as swimming or canoeing in designated recreation areas
- Read and obey all signs in the area
- Always check the water carefully before entering safely
- Enter cold water slowly
- Watch out for, and stay away from, boat areas



Lakes and Dams

The flat, still appearance of lakes and dams often gives a false impression of safety. Strong winds can produce short, choppy, dangerous waves and reduced temperatures.

Dangers and Hazards:

- River entry and exit points
- Cold water
- Waves

Stay safe at the lake:

- Never go alone.
- Only participate in activities such as swimming or canoeing in designated recreational areas.
- Read and obey all signs in the area.
- If you are unsure about the conditions, ask a local.
- Scan carefully for any potential dangers such as other water users/ water craft, water quality, waves, or obstacles before you consider entering the water safely.



The Beach and Ocean

Going to the beach is a popular pastime in Australia. The ocean can be a fun place to spend summer days but it can also be a dangerous place.

Waves:

- Plunging wave - this wave breaks with great force and is capable of pushing swimmers to the bottom. These are sometimes called dumpers.
- Spilling wave - this type of wave occurs when its crest tumbles down its front or face. Spilling wave can form tunnels and tubes
- Surging wave - this is the wave which seldom breaks as it nears the water edge. Water beneath the wave is very deep and the wave therefore does not slow down or gain height. Surging waves can knock swimmers down and carry them out to deep water

Currents:

- Tidal currents are caused by the rise and fall of the tide these currents don't always flow into and out from shore/ they may flow across or at an angle to the shore. This often occurs at the entrance to bays, inlets and river mouths
- Runback currents are caused by the back wash of waves and are usually strongest where the beach is steep. Inshore or side currents are produced by waves breaking over a sandbank or by waves breaking at an angle to the beach or both.

Rips

Rips are fast flowing runback currents that are very dangerous for swimmers in the sea. Water always finds its own level so after waves break onto the beach the water flows out in the direction that causes the least resistance-this is a rip.

How to recognise a rip:

- Discoloured water, brown in colour due to sand stirred off the bottom
- Foam on the surface that extends beyond the breaking wave
- A ripple appearance when the water around is generally calm
- Debris floating with the current
- Waves breaking larger and further out on both sides of the rip



Stay safe at the beach:

- Always swim at a patrolled beach.
- Read and obey the signs and the lifeguards.
- Always swim between the red and yellow flags.
- Always swim with another person – never alone.
- If you have any doubts about your ability to cope with the conditions, you should not enter the water.
- Beware of digging deep holes, as the sides can become unstable and collapse.

Swimming Pool

The local public swimming pool, a theme park or a hotel pool are popular places to enjoy a swim.

Dangers and Hazards:

- Large crowds with young children, elderly people or inexperienced swimmers
- Slippery surfaces around the edges
- A varied depth of the water

Stay safe at the pool:

- Read and obey notices giving advice to swimmers.
- Obey the pool lifeguards.
- Check the depth markings on the pool side to see where it is best to swim or dive.
- Stay clear of deep water unless you can swim.
- Make sure the water is clear before jumping in.



The Home

Although the home may seem to be a relatively safe place, it has many potential dangers, particularly for very young children.

Dangers and Hazards

Some of the water dangers in and around the home include:

- Unfenced home pool
- Gates and barriers left open allowing easy access to a pool
- Fish-ponds in gardens which may attract youngsters
- Uncovered spa bath
- Filled paddling pools which are not in use
- Buckets filled with liquids
- Eskies with melted ice
- Bath filled with water or plug left in
- Washing machines with open lids
- Toilets with open or accessible lids.
- Dams
- Water bodies

Stay safe in and around the home:

- Fence home pools and include self-closing gates.
- Keep the bathplug out of reach of small children.
- Keep liquid-filled buckets out of reach of children.
- Empty children's paddling pools as soon as they have finished using them.
- Close top-loading washing machines.
- Keep fish ponds covered.
- Install rigid covers over spas.
- Remove climbing objects from around the exterior area of the pool.



KEEP 
WATCH
TO PREVENT DROWNING

ROCK FISHING

DON'T PUT YOUR LIFE ON THE LINE

A ROCK FISHING SAFETY MESSAGE FROM Recfishwest

- Wear a life jacket
- Never fish alone
- Observe first, fish later
- Wear appropriate footwear



ROCK FISHING SAFETY: KEY MESSAGES

Tell someone:

Always let friends know where you are going, when you'll be back and if your plans change.

Never fish alone:

Always fish with a buddy; if you get into any trouble, they can help. If you're new to rock fishing, go with an experienced fisher.

Know the area, know the conditions:

Read all the safety signage – it's been placed there for a reason. Check swell, tide and wind conditions before your trip.

Wear appropriate clothing:

Light clothing such as shorts and a spray jacket will allow you to swim more freely if you are washed in. Wear appropriate footwear with non-slip soles or cleats suited to the surface you plan to fish from.

Wear a Life Jacket:

Wear a life jacket or buoyancy vest at all times.

Observe first, fish later:

Spend time (at least 20 minutes) watching your intended fishing spot to get an idea of the conditions over a swell/wave cycle.

Plan your escape:

Scan the area and look for the safest place to come ashore should you be swept in. Decide on a quick getaway route from your fishing spot, well above the high tide line should you see a large wave coming.

Use appropriate Public Safety Equipment:

Know how to correctly utilise rock anchor points if they are in place at your fishing location. Know where the nearest public safety equipment is – and know how to use it.

Stay alert:

Don't ever turn your back on the ocean – if the waves, weather or swell threaten your fishing spot then leave immediately.

If you go in...

Stay calm, swim away from the rocks and remove any heavy or waterlogged clothing. Float on your back and await rescue, or if you're capable, swim ashore to the safe area you identified from your initial observations.

If you see someone else go in...

Do not jump in if someone is washed into the water. Use your rope or something that floats to help rescue the person. If there's public safety equipment nearby, know how to use it. Dial 000 or the local Sea Rescue to get help.

For more information, please visit www.recfishwest.org.au

DROWNING: DEFINITION AND PROCESS

Drowning is the process of experiencing respiratory impairment from submersion or immersion in a liquid.

The most important consequence of drowning is interruption of the oxygen supply to the brain.

Drowning outcomes are classified as:

- Mortality - fatal drowning – resulting in death
- Morbidity - non-fatal drowning – resulting in serious health outcomes
- No Morbidity - non-fatal drowning – no adverse health outcomes as a result of the incident

POSSIBLE SEQUENCE OF EVENTS

- Immersion of the face in water (or other liquid).
Water entering the mouth is spat out, swallowed or aspirated. • Breath-holding, usually lasting no more than a minute.
- Vigorous breathing efforts. These may continue, even after loss of consciousness. Some amount of water is aspirated into the airways causing coughing and sometimes laryngeal spasm, which temporarily prevents further water entering the lungs. • Swallowing of air and water, often in large amounts. This usually causes vomiting or regurgitation of stomach contents, which may be aspirated into the lungs.
- Respiratory impairment causes brain hypoxia, leading to unconsciousness and cessation of breathing efforts.
- The heart rate initially increases with exercise and panic. With hypoxia, the heart rate and blood pressure begin to fall, progressing finally to a cardiac arrest, requiring CPR.

How long does it take to drown?

The whole drowning process, from submersion or immersion to cardiac arrest, usually occurs in seconds to a few minutes, but in unusual situations, such as hypothermia or drowning in ice water, this process can last for an hour.

CATEGORIES OF PERSONS IN DIFFICULTY

Priorities of Rescue

When more than one person is in difficulty, the rescuer must consider who to help first. Normally, attention should first be given to securing and supporting conscious people. Of these, non-swimmers should be given top priority because they are in danger of losing consciousness. However, it may be possible to provide early support to other people quickly and easily without significantly delaying the rescue of non-swimmers. Attention can then be given to unconscious or submerged people.

When rescuing multiple swimmers in difficulty, the following swimmers should be rescued in the order shown below (the precise order of rescues will however be determined by the nature of the emergency).

1. Non-swimmer

Non-swimmers will panic when experiencing difficulty in the water. They are often doing what is referred to as “climbing the ladder”. The swimmer will be vertical in the water and appear to be climbing a vertical ladder. The swimmer will have minimal or non-supportive leg action. They may submerge and may or may not be facing the shore. A non-swimmer may attempt to grab the rescuer.

2. Weak swimmer

Weak swimmers may be able to use their arms and legs for support. The swimmer will be angled in the water (approximately 45°) and may attempt to grasp the rescuer or a floatation aid. Head position will be tilted up and back and the head will usually be turned to safety or help.

3. Injured Swimmer

An injured swimmer will typically grasp the injured body part and be calling for help. They may be in an awkward position, but will be able to use a floatation device if provided.

4. Unconscious

The unconscious person may be at any level of the pool, depending of the length of time they've been unconscious. The individual may be face-up or face-down in the water, but will not be moving.

RESCUE TECHNIQUES

Remember: Self-preservation!

The key to any rescue is SELF PRESERVATION! A dry rescue is the best rescue. Rescues that can be performed without getting wet are the safest. Do not put yourself in danger. To ensure maximum safety, any rescuer should consider using, in priority order, the following methods of rescue.

DRY RESCUES

Non-swimming rescues:

- Talk
- Reach
- Throw
- Wade
- Row

WATER RESCUES

Swimming rescues:

- Swim (Accompanied)
- Tow (non-contact and contact)

Talk	The person in trouble is conscious, capable of responding to instructions and is close enough to the rescuer for them to see their gestures and hear their voice.
Reach	The person in difficulty is near the edge; for example, having fallen in the water.
Throw	The person in difficulty is too far away to carry out a reach rescue. The purpose of throwing a buoyant aid is to provide the swimmer in difficulty with support until removal from the danger area is possible.
Wade	Attempts to reach and throw have been unsuccessful and the depth, current and temperature of the water permit a safe entry. The technique brings the rescue nearer to the person in difficulty and may enable a reach or throw rescue to be attempted.
Row	It is not possible to perform reach or throw rescues and a wade rescue is not possible because of the depth of the water. This is an effective and safe technique because the rescuer remains clear of the water and the person in difficulty can be made secure quickly and safely. Be aware of the craft and its limitations.
Swimming Rescues	Rescuers should use a swimming rescue only when all land-based rescues have either failed or are not appropriate.
Tow (non-contact and contact)	If a swimming rescue is to be used, always attempt an accompanied rescue first. However, a non-contact tow can be used when an accompanied rescue is not possible or has proven ineffective.

TYPES OF ENTRIES

For all entries and exits remember to:

- carefully assess the area to determine the best method of entry and exit
- choose an entry that offers complete safety
- always consider the depth when entering

Entry Method	When to use it
Slide In	The depth of water and state of the bottom are unknown. This entry is controlled and safe, allowing the feet and an aid to feel for unseen obstacles below the surface.
Wade In	The water is shallow and the conditions are unknown. The entry is controlled and safe, allowing the feet and an aid to feel for unseen obstacles below the surface.
Step In	The water is clear, the depth known and the bottom free from obstacles. The entry is most appropriate for areas where the entry point is not much higher than the water level.
Compact Jump	An entry is required from a height of more than one metre into known deep water. A feet-first entry is safer than a head-first entry, especially when the water has debris floating on it. This entry is primarily used in emergencies.
Standing and Shallow Dive	The water is known to be deep and free of obstacles.
Stride	A rescuer needs to watch the person in difficulty and entry is to be made from a low height into water known to be free of obstacles.
Accidental Fall In	A fall into the water occurs unexpectedly and requires the person to protect the head

CONTACT TOWING TECHNIQUES

An effective contact tow must:

- Keep the person's mouth above water at all times.
- Enable the rescuer and the person being towed to be as horizontal as possible to keep resistance to a minimum.
- Allow freedom for the rescuer's swimming movements.
- Make only reasonable demands upon the rescuer's stamina and strength consistent with the water conditions and distance to be covered.
- Control the unconscious person's head position so that the airway can be kept open and water does not wash over the face.

The following contact rescue techniques may be used to carry out a rescue

Tow	When to use it
Cross Chest	Conditions are rough.
Head Tow	A firm hold of the unconscious casualty's head is required
Clothing Tow	The unconscious person is clothed and the conditions are calm.
Double	An entry is required from a height of more than one metre into known deep water. A feet-first entry is safer than a head-first entry, especially when the water has debris floating on it. This entry is primarily used in emergencies.
Armpit Tow	It is necessary to control the body position of the unconscious person and the rescuer does not have the swimming power to perform a cross chest tow.
Double Shoulder Tow	It is necessary to maintain a higher head elevation of the unconscious person. It is of benefit in rough water although more propulsive power on the part of the rescuer is required.
Vice Grip Tow	The person in difficulty has a suspected spinal injury.
Support Tow	This technique is particularly useful for those who are unconscious and not breathing, as it supports the head, allowing it to be kept clear of the water.
Wrist Tow	The person in difficulty is conscious, entirely cooperative, and all other rescue methods are unsuccessful. NEVER use a wrist tow with an unconscious swimmer. A wrist tow does not maintain an open airway.
Armpit Tow	The person in difficulty is entirely cooperative, and all other rescue methods are unsuccessful.

DEFENSIVE TECHNIQUES

A situation may arise where a rescuer will need to use defences to avoid contact with a person in difficulty. For example, in a boating incident, you may find yourself in a range of a panicked person. At all times it is essential to maintain a safe distance from a person in trouble and therefore defensive positions may need to be adopted.

Defensive Position

This position allows the rescuer to reverse away quickly should this be necessary.

- Maintain a safe distance from the person in difficulty.
- Tuck the legs rapidly under the body.
- Push the legs forwards.
- Make a final assessment from this safe position.

Reverse

The person in difficulty attempts to grasp the rescuer.

- Tuck the legs rapidly under the body and push them forwards as in the defensive position.
- Kick away vigorously.
- Readopt the defensive position.

Blocking

The person in difficulty lunges suddenly at a rescuer before it is possible for the rescuer to move away. While a description of blocking has been provided, the safest way to perform a rescue is to keep a safe distance between the rescuer and the person difficulty.

- Raise a leg or aid to block the person.
- Push against the person's body, preferably in the chest area.
- Swim away or submerge if necessary.

Two People Locked Together

A situation may arise when poor swimmers grasp each other in an attempt to remain on the surface. This is a very dangerous situation where the following procedure is recommended:

Cooperative swimmers

- Place a buoyant aid between the two people.
- One or both people may hold the aid (depending on the size of the aid).
- Tow the people to safety, singly or together.

Non-cooperative swimmers (If they will not grab the aid)

- Come from behind one of the swimmers, place the aid in the centre of the two swimmers, and use force to pull the swimmers off each other, by holding onto one swimmer under the armpits and using the defensive position to push off the other swimmers chest.
- The person who you are holding onto tells them to calm down, the other swimmer should be holding onto the aid provided, use an accompanied rescue whilst towing the other swimmer in to safety.

SPINAL INJURIES

Spinal injury is sometimes caused when the head impacts against a hard surface, for example the pool floor or even the water if the person is diving from a height.

Unless you observed the circumstances leading to a person becoming unconscious in shallow water and know that neck or back injury is highly improbable, then the motionless casualty lying in shallow water must always be treated as a suspected spinal injured casualty.

Also any person unconscious within the immediate vicinity of a dive board or tower can also be suspected as having spinal injuries even though they are found in deep water.

Nearly all aquatic spinal injuries occur in the neck area. This is due to the impact being followed by forward bending of the neck (flexion). The spinal cord contained within the vertebrae has only a small channel in the neck region and any further reduction in the size of the channel through bone fragments protruding, movement of the cord or swelling in the area, can all place pressure on the cord, which may lead to permanent spinal damage.

The immediate concern is the airway management. Nothing is more important than maintaining the airway and ensuring breathing. A.B.C. always takes priority. With only one rescuer, immobilisation may not be possible if resuscitation is needed. If C.P.R. is needed then the casualty must be taken from the water as quickly as possible, taking as much care as you can and commence CPR on land.

If the person is breathing and lying face up then the rescuer needs only to provide some means of support to the head and neck, if the casualty is lying face down in the water then they must be turned to keep the mouth and nose clear.

Removal from the water should only be attempted when there is no chance of emergency services arriving within a sufficient time period.

If not breathing and can't remove the casualty from the water, breaths can be given to the casualty (at the side of the pool / as soon as possible) through mouth to nose. What to do if removed from the water

- If unconscious and breathing, CAREFULLY place the casualty in recovery position and monitor their ABC. An ambulance should be called at this stage.
- Resuscitation should be commenced if the casualty is unconscious and not breathing (as with any unconscious casualty).
- If conscious, DO NOT MOVE, maintain the casualty in a comfortable position and call for an ambulance. Permanent paralysis and other serious injuries may result from movement.
- Provide continual reassurance to the casualty to avoid shock
- Maintain body temperature

Signs and symptoms

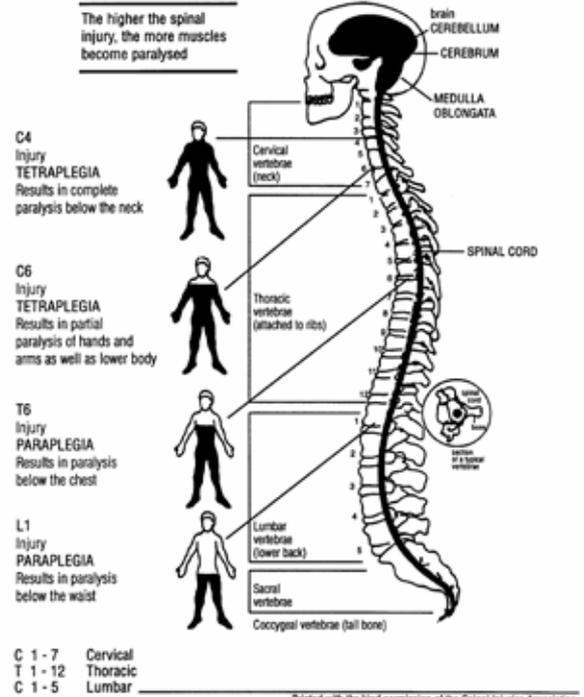
A casualty who has suffered a spinal injury may have broken the bones of the spine, or have damaged the spinal cord within it. If the spinal cord is damaged, the casualty will experience lack of movement, muscle weakness, numbness or tingling. The casualty will be in pain and bewildered by the lack of movement. The casualty may be face up or face down, conscious or unconscious, breathing or non-breathing. Deformity, redness, muscle tightness or lacerations may be present at the site of the injury. The conscious casualty may complain of visual problems and pain.

Management

- Follow the DRSABCD action plan.
- Prevent any twisting of the head or spine; but remember that nothing is more important than maintaining the airway and ensuring breathing.
- Extreme care must be taken and the casualty should only be moved by rescuers trained in spinal management injury.
- Immobilise the head and neck.
- If the casualty is in the water, immobilisation is best achieved by using the vice grip technique.

THE ANATOMY OF THE SPINE AND SPINAL CORD

Level of Injury and extent of paralysis



SPINAL MANAGEMENT

Vice Grip (face-down casualty) shallow and deep water

The vice grip is used to immobilise the spine when a spinal cord injury is suspected. In aquatic spinal cord injury, damage occurs quite high in the spinal cord. Correct application of the vice grip can immobilise the neck and prevent any further damage to the spinal cord from movement of dislocated or fractured vertebrae.

How

- Carefully position hands on the casualty's face and head.
- The face hand is positioned with the fingers spread on one side of the casualty's face, the thumb on the other side and the flesh between the thumb and index finger over the chin.
- The forearm is placed straight down the sternum (or as close to as possible).
- The hand on the back of the head is located quite high on the head with the thumb and little finger at about ear level.
- The forearm is placed straight down the spine.
- By pressing in firmly with the hands and arms in this position, a vice grip is achieved.
- Approach the casualty over by walking/stepping to create momentum and then swimming under the head of the casualty – do not lift the head and ensure the whole body turned in one movement to prevent further damage. The roll should be initiated from the squeezed elbows not the hands.



Extended Arm Rollover – shallow water

- Approach the person with as little water disturbance as possible, from the side, facing towards the head.
- Extend the person's arms, under the water, from above the elbows, beyond the head, to the level of the ears and press them firmly alongside the head.
- While maintaining the grip on the arms, position the thumbs lightly on the back of the person head to prevent neck extension.
- Move the person gently head first in a slow directed glide to achieve a horizontal body position.
- As you lower into the water, without loosening your grip, Roll the person gently onto their back so they face away during the turn and finish resting on the crook of the arm.
- Maintain immobilisation by pulling inwards with the far hand and forearm against the upper arm and chest.
- The free arm can then support the body.

At no stage during the manoeuvre should the neck be allowed to flex or more laterally.

Step 1



Step 2



Step 3



SEARCH PATTERNS

Recovering a Submerged Person

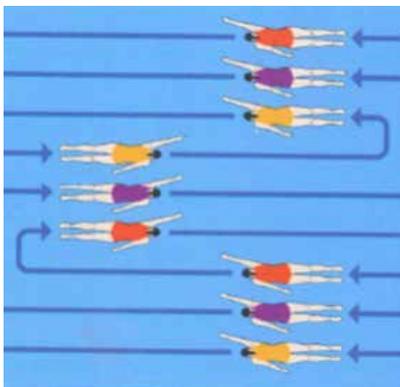
If the rescuer has observed the person in difficulty submerging either prior to or during the approach, the location of the body will be known and recovery of the body can be performed without delay. However, if the location of the body is not known, a search will be necessary.

Lakes, dams and rivers have areas of murky water. An unconscious body that submerges in these areas maybe lost from sight. The only indication of the person's location may be bubbles, murky / disturbed water.

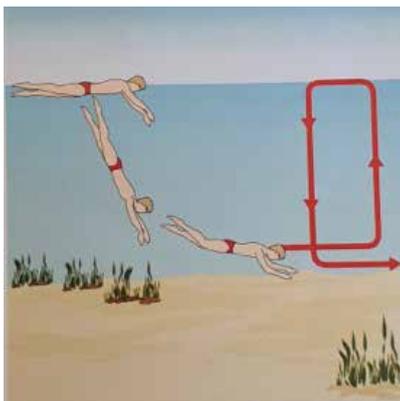
Parallel Patten Team Search

- One person takes charge to coordinate the rescue
- A second person is sent for help
- The remaining rescuers, including the coordinator, space themselves at a distance where they can see the rescuers either sides when underwater
- The rescuers must perform the search in parallel lines following the backing up technique (see picture below). To turn the group, the end person acts as a pivot to ensure the whole search area is covered. It is important to know reference points on land from which to monitor the area that has to be searched

During a river search remember to check the river bank first.



Backing up technique



RECOVERY AND RESUSCITATION IN THE WATER

During the course of a rescue, it may be necessary to commence rescue breathing while still in the water. Chest compressions are not possible in the water but successful rescue breathing has been documented on many occasions.

The principles of resuscitation in the water are similar to those for resuscitation on land.

- Establish a clear airway
- Ensure the head is tilted and the chin lifted.
- Check for the presence or absence of breathing.
- If breathing is absent, commence rescue breathing.
- Complete the rescue and extract the casualty from the water as soon as possible. This may mean not undertaking rescue breathing on the way to safety.
- Continue with DRSABCD.

If the person cannot be removed from the water for any reason then it is reasonable to continue rescue breathing until the casualty is rescued from the water. The rate for rescue breathing in the water is 15-20 breaths per minute (1 breath every 4 seconds) irrespective of the casualty's age.

Shallow water resuscitation

If the water is moving, the casualty may need to be secured and supported by the rescuer's body and knees. The side of a pool, for example, may also be used to provide such support.

If it is possible to perform rescue breathing successfully in the water, then it may be safe to continue there. In general, the casualty should be quickly moved to dry land, to enable CPR to be commenced as soon as possible.

Deep-water resuscitation

When learning deep-water rescue breathing, trainee lifesavers will find that the most effective way to establish a clear airway is to allow the unconscious person's body to hang vertically in the water to open the airway. This can be done by placing one hand under the head, and the other on the face to apply a head tilt and chin support. Many trainees initially make the mistake of trying to float the unconscious person in a horizontal position, in an attempt to copy rescue breathing as performed on land.

To be able to perform efficient deep-water rescue breathing, rescuers need to practise using a variety of buoyant aids.

For deep water rescue breathing at an edge, the rescuer uses the edge for support. In-water resuscitation rescue breaths should be performed mouth-to-nose. The same vertical position is required.

All efforts should be made to remove the casualty from the water as soon as possible to commence CPR

ASSISTED LIFTS AFTER RESCUING

A successful rescue requires the person in difficulty to be removed or assisted from the water and moved to a place of safety. The removal should be carried out as quickly as possible with the minimum risk of accident to both the person in difficulty and the rescuer, and with minimum interruption to the performance of resuscitation, should this be required.

WA Assisted lift

Used when help is available but the person in difficulty is unable to provide assistance. This lift can be performed by two, three or four people.

How

- One rescuer must take control and organise the lift.
- The person in difficulty should be facing the edge supported by a rescuer
- The rescuers on the edge should cross the casualty's arms over and take a firm hold of the person's wrists whilst waiting for the 2nd rescuer to exit the water.
- Once the second rescuer has exited the water both rescuers should take a firm hold of the casualty's wrist and elbow slowly turning the casualty so that their back is against the wall.
- On an agreed signal, the rescuers lift, raising the casualty to a position where the hips are higher than the bank/edge
- Sit the person on the bank, support their back with your knee, support their head as they are lowered to the ground.
- The rescuers then move the casualty to a safe area and commence airway and breathing checks. Place them in the recovery position if breathing or start CPR and provide after care.

While this technique can be used by a lone rescuer it is not recommended.

STIRRUP LIFT

Used when the person in difficulty is able to help.

How

- Provide support against the edge until the person in difficulty has recovered sufficiently to be assisted from the water.
- Move to the other side or behind the person.
- If the water is shallow, reach down and cup the hands against one knee.
- If the water is deep, cup one hand while using the second hand to maintain a firm grip on the edge.
- If the edge is high, it may be difficult to hold. In this case the rescuer should tread water while providing a stirrup. As the person levers their body up, the rescuer may go under water.
- Instruct the person to place one foot in the stirrup formed by the hand(s), step up and leave the water



SURVIVAL STRATEGIES AND TECHNIQUES

Survival in deep water depends on the ability to use the following:

- Knowledge – to understand what to do
- Judgement – to decide what to do
- Skill – to perform what is required
- Fitness – to achieve the desired results

Swimmers in survival situations should remain calm and consider the following:

- winds, currents or tide strength and direction
- distance from safety
- ability to swim safely
- the possibility of someone on the shore coming to help
- the weather and water conditions
- air and water temperature
- whether a craft will remain floating or submerge
- whether the craft can be held
- what buoyant objects would help floatation
- the clothing being worn
- whether to remove heavy clothing

Survival Swimming

The key to survive is to conserve energy and, when necessary, to retain body heat.

How

- Make a plan and avoid panic – even when exhausted or suffering from a difficulty such as a cramp, it is still possible to remain afloat for long periods of time.
- Stay afloat and hold any buoyant object to help floatation or put on a lifejacket and remain as still as possible.
- Maintain the body in a relaxed position. If propulsion is desired, keep as horizontal as possible.
- Keep the body and limbs submerged.
- In cold water, retain clothing. Keep the head and as much of the body as possible out of the water, minimise movement and adopt the heat escape lessening posture (HELP) or huddle position (more than 1 person).
- Swim with slow and relaxed strokes to conserve energy.
- Change position and stroke to lessen muscular fatigue.
- Attract attention.

To survive cold water immersion:

- Wear a lifejacket and protective clothing.
- Grasp large floatation aid or boat wreckage if available and climb as high out of the water as possible.
- Avoid immersing the head.
- Adopt a HELP (heat escape lessening position) or huddle position.
- Remain as still as possible.

Putting on a lifejacket in the water

Ideally, lifejackets should be on prior to entering the water. However, if this is not the case use the technique below.

How

- Place the lifejacket in front of the body on the surface of the water, ensuring the inner lining is facing upwards and that the collar is away from the body.
- Place one arm into the appropriate arm hole.
- Turning the body, lean back into the lifejacket (lying on the back with lifejacket underneath).
- Place the other arm into the lifejacket.
- While lying on the back, zip, tie and/or buckle the lifejacket.

It is important to keep hold of the lifejacket, especially in rough conditions and attempt to put it on without getting the head wet.



INDIVIDUAL SURVIVAL STRATEGY

The key to survival is to conserve energy and, where necessary, to retain body heat. When the time to rescue is unknown, or likely to be long, it is vitally important to minimise energy expenditure and heat loss. In this circumstance survival sculling, floating and/or treading water are the preferred techniques. However, if swimming is unavoidable, use the following strategy.

How

- Identify a leader who will be responsible for organising the group. This could be someone with existing authority or the person with the most survival knowledge or experience in survival.
- Make a plan and avoid panic – even when exhausted or suffering from a difficulty such as cramp, it is still possible to remain afloat for long periods of time.
- Stay afloat and hold any buoyant object to help floatation or put on a lifejacket (if one is available) and remain as still as possible.
- Maintain the body in a relaxed position. If propulsion is desired, keep as horizontal as possible.
- Keep the body and limbs submerged. This is especially important if wearing clothes. This position takes advantage of the body's natural buoyancy and enables the face to be lifted clear of the water with a minimum of effort whenever a breath is required
- It is important to retain head covering because a large proportion of heat is lost via the head
- In cold water, retain clothing. Minimise movement and adopt the heat escape lessening posture (HELP).
- If swimming cannot be avoided use slow, relaxed strokes to conserve energy.
- Change position and stroke to lessen muscular fatigue. The ability to perform a range of survival strokes – survival backstroke, survival breaststroke and sidestroke will increase confidence and the ability to cope with changing circumstances.
- Keep the eyes open to avoid loss of confidence and the build-up of tension. The sun and salt water, however, may adversely affect the eyes and make it undesirable to keep them open at all times.
- Breathe in a regular and controlled manner to prolong endurance and assist floatation.
- Attract attention. This may be achieved by lying on the back in the water and waving one arm. Lifting both arms consumes energy and will cause the body to sink.

THE KEY TO SURVIVAL IS TO CONSERVE ENERGY

GROUP SURVIVAL STRATEGY

In addition to the principles of survival outlined above for an individual, the following additional points may be considered for group survival situations.

How

- Make 2 lines and pair up by facing one another
- Give every person in the group a number
- Remove heavy clothing if needed
- Use aids effectively. If no aids are available clothes can be blown up and used as floatation devices.
- Swim survival strokes – survival backstroke, survival breaststroke and sidestroke.
- Line 1 should swim survival backstroke whilst line 2 swims survival breaststroke, this ensures that each pair are keeping an eye on one another
- Swim slow with relaxed strokes while keeping your head out of the water
- Supervise the weaker swimmers and put them in between line 1 and 2
- Stay together as a group and encourage each other
- When the group becomes tired and to avoid muscle fatigue swim through line 1 to change your stroke and position in the water. Always use the defensive position when a swim through is being done.



ALCOHOL AND RECREATIONAL AQUATIC ACTIVITY

There are a number of factors that increase risk of injury if involved in swimming and other water related activity. Drinking alcohol in, on and around water will significantly increase the risk of drowning.

The impact of alcohol and drowning amongst young people ages 15-24 remains a significant issue in Western Australia. On average four young people will lose their life to drowning and a further 10 will be hospitalized following a non-fatal drowning each year in WA, many of whom will have devastating, ongoing health issues as the result of brain damage and spinal cord injury. Overall alcohol contributes to 30% of these incidents.

Effects of alcohol when combined with aquatic activity

- Impaired judgment
- Impaired balance, vision and coordination (leading to increased risk of falling overboard, falling heavily or being involved in a collision).
- Less inhibitions, more confidence.
- Loss of muscle control, tiredness, blurred vision and confusion.
- Blood vessel dilation (may increase the period of time in which someone chooses to stay in cold water and increase the risk of sustaining hypothermia).
- Labyrinthine function (vertigo) and laryngospasm (which may reduce the chances of survival in the water due to the effect on swimming ability).



Looking out for mates

Be a good mate to someone thinking about swimming under the influence of alcohol.

Friends don't let friends drive drunk so why let them swim under the influence?

Look after yourself and your friends

- Participate in aquatic activities before drinking and don't enter the water after consuming alcohol.
- Trust your instincts – if you don't feel safe you probably aren't.
- Avoid risky situations – drugs and alcohol affect your judgement and stop you thinking clearly.
- Be a good friend, don't leave your mates on their own – never swim or surf alone or at night, and always swim in safe locations i.e. between the flags.

Alcohol and swimming don't mix. Be the influence!

- Young people are role models, they look at their peers and model their behaviour around each other. You can be the influence in relation to alcohol use by:
 - Having the strength to say no to swimming when alcohol is consumed.
 - Suggest alternative activities that don't involve swimming while under the influence of alcohol.
 - Stand up for others facing peer pressure.
 - Schedule your aquatic activity to happen BEFORE any alcohol is consumed.
 - If you have been drinking, don't go back into the water and don't allow your friends to either.
 - Make sure you have had a substantial meal before drinking and drink plenty of water

Know what to do if you get in trouble

- Learn basic first aid – if a friend is drunk or sick, stay with them. If they want to lie down, put them on their side in case they vomit.
- Call triple zero (000) – if someone passes out or looks like they're in trouble.



RESOURCE LINKS AND FURTHER INFORMATION

- Royal Life Saving Society WA and Australia - www.royallifesavingwa.com.au
- Bureau of Meteorology - www.bom.gov.au
- Department of sport and recreation - www.dsr.wa.gov.au
- KEEP WATCH - <https://royallifesavingwa.com.au/programs/keep-watch>
- DON'T DRINK AND DROWN <https://royallifesavingwa.com.au/programs/dont-drink-and-drown>
- Recfishwest <https://recfishwest.org.au/>
- Rips and currents - www.ripcurrents.noaa.gov
- www.sharksmart.com.au
- Beachsafe.org.au (Phone App)
- Water Safety (Phone App)
- Emergency + (Phone App)



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